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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,524	10/16/2003	Seong Jin Jo	9988.064.00-US	3986
30827	7590	08/02/2006	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP			PERRIN, JOSEPH L	
1900 K STREET, NW			ART UNIT	
WASHINGTON, DC 20006			PAPER NUMBER	

1746

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/686,524

Applicant(s)

JO, SEONG JIN

Examiner

Joseph L. Perrin, PhD

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20031016 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____  | 6) <input type="checkbox"/> Other: ____                                     |

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Korea on 16 October 2002. It is noted, however, that applicant has not filed a certified copy of the P 2002-0063312 application as required by 35 U.S.C. 119(b).

### ***Information Disclosure Statement***

2. It is noted that an Information Disclosure Statement under 37 CFR 1.97 for the present application has not been received by the Office. If Applicant believes this to be in error, Applicant is urged to submit documentation supporting a proper filing of any previously submitted information disclosure statements in order to have such disclosures considered by the Office.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 5-8, 10-12, 15-18 & 20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,419,164 to DURAZZANI. Re claims 1 & 11,

DURAZZANI discloses a washing machine having a plastic tub (1) including a front outer tub (8) having an open front and rear & a rear outer tub (3) having a closed end and an open end which couples to the front outer tub via connecting means (10/12), the front outer tub having a thickness greater than the rear outer tub (see entire document, for instance, Figures 1 & 3 and relative associated text). Re claims 2, 5-8, 10, 12, 15-18 & 20, DURAZZANI further discloses forming the front outer tub via "traditional processing methods" (i.e. injection molding, see col. 1, lines 59-64) to include calcium carbonate either inserted inside the injection molded plastic or "as a filler to plastic" to provide a counterweight or ballast effect in the front outer tub (see, for instance, col. 3, lines 55-65). The Examiner notes that the specific gravity (density) of calcium carbonate is well known to be higher than conventional injection molded plastics (i.e. polypropylene, polyethylene, polyvinyl chloride, or the like) and, therefore, plastics combined with calcium carbonate necessarily must have a higher specific gravity or density. Re claims 2 & 12, the Examiner further notes that calcium carbonate reads on "metal powder" since calcium is an alkaline earth metal and calcium carbonate is a solid powder.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 3-4 & 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over DURAZZANI in view of U.S. Patent No. 5,196,506 to TAMAI *et al.* or U.S. Patent No. 5,171,769 to BULL *et al.* or U.S. Patent No. 4,136,079 to KATAYAMA *et al.*

Recitation of DURAZZANI is repeated here from above. Although DURAZZANI discloses using "heavy-weight materials other than concrete", specifically calcium carbonate as a filler in plastic, to provide counterweight in a washing machine, DURAZZANI does not expressly disclose using other fillers such as aluminum based metal powder or iron based metal powder. Each of TAMAI *et al.* (col. 9, lines 24-42), BULL *et al.* (col. 4, line 64 – col. 5, line 11) & KATAYAMA *et al.* (col. 8, lines 16-24) teach that it is known to provide a molding plastic/polymer with various fillers including calcium carbonate, aluminum powder and iron powder to achieve desired properties. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide any known filler having a higher specific weight (density) than the plastic/polymer used therewith since applicant has not disclosed that using any specific filler (i.e. calcium carbonate or iron or aluminum) solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with

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other known fillers having a known high density and the selection of any of these known equivalents to provide added counterweight in a washing machine tub would be within the level of ordinary skill in the art.

8. Claims 9 & 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over DURAZZANI. Recitation of DURAZZANI is repeated here from above. Although DURAZZANI discloses the tub having a front outer tub with open front and rear combined with a rear outer tub with open front and closed rear, DURAZZANI does not expressly disclose a middle outer tub with open front and rear. It would have been obvious to one having ordinary skill in the art at the time the invention was made to separate the rear outer tub of DURAZZANI into two parts to form a middle outer tub and rear outer tub as claimed by applicant, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

### ***Conclusion***

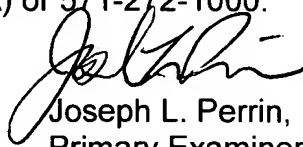
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent Publication No. 2003/0008105 to HAACK *et al.*, which discloses the conventional use of fillers in plastics for injection molding known to have a higher density than the plastics, and inserting metal in an injected molded plastic; U.S. Patent No. 5,965,236 to DURAZZANI, which discloses a plastic (polypropylene) injection molded tub having calcium carbonate and/or silicon filler.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, PhD whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Joseph L. Perrin, PhD  
Primary Examiner.  
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jlp